

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028815**Date Inspected:** 20-Nov-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Barry Drake and Steve Jensen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-PP123-W2.8 BF2 drop-in floor beam inside, QA randomly observed ABF/JV welder Ric Chouinard continuing to perform CJP groove welding surface repair due to various surface defects. The welder was observed welding in various positions utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The surface repairs were preheated to more than 150 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Fred Michels was noted monitoring the welder. These surface repairs were noted after ABF QC has turned them over to QA and these were rejected due to surface defects. At the end of the shift, surface welding repair was completed.

At OBG 8W-PP61.5-W2 deck access hole outside, QA randomly observed ABF/JV welder Wai Kit Lai continuing to perform CJP groove welding repair on a non-Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded butt joint. The repair excavation was located at Y=3210mm and was having an excavation dimensions of 80mm long x 20mm wide x 11mm deep. The welder preheated the repair area and its vicinity to >150°F using propylene gas torch prior excavation and then ground smooth the groove of the excavation. The welder was noted using propylene gas torch to preheat the repair area and its vicinity to 150°F and as soon as the required temperature was attained the welder started performing the welding repair. These repairs listed below don't need Request for Weld Repair (RWR) due to second time repair only. Welder Wai Kit Lai was observed manually welding in 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

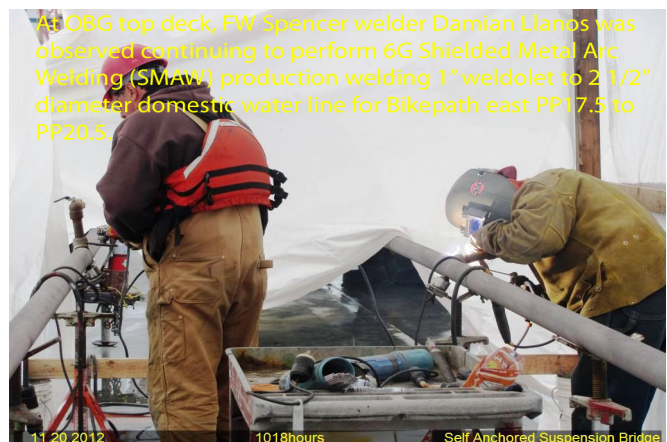
2mm diameter E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1000 Repair. This repair was a continuation from yesterday's welding repair. During welding, ABF QC Barry Drake was noted monitoring the welder's welding parameter with measured working current of 120 amperes on the 3.2mm diameter E7018H4R electrodes. At the end of the shift, repair welding at location mentioned above was completed.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on drop-in floor beam flanges weld T-joints. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 13W-PP124-W2.2 BF1 – flange to flange T-joint connection.
2. 13W-PP124-W2.2 BR1 – flange to flange corner stiffener.
3. 13W-PP122.5-W2.1 BF1 – flange to flange T-joint connection.
4. 13W-PP122.5-W2.1 BR1 – flange to flange corner stiffener.
5. 13W-PP122-W2.1 BF1 – flange to flange T-joint connection.
6. 13W-PP122-W2.1 BR1 – flange to flange corner stiffener.
7. 13W-PP122.5-W2.1 BW1 – web to web butt joint

FW Spencer:

At OBG location panel point PP21.5 to PP24.5, this QA randomly observed FW Spencer welder Damian Llanos continuing to perform Complete Joint Penetration (CJP) 6G (all position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on 1" weldolet to 2 1/2" diameter domestic water line field branch joints. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and followed by fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing Caltrans procedure FW Spencer WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable propylene gas torch prior welding. During welding, ABF QC Steve Jensen was noted monitoring the parameters of the welder. At the end of the FW Spencer shift, CJP welding on four (4) 1" diameter weldolet to 2 1/2" diameter domestic water line pipe joints were still in progress at weld designated joints; 1/CA2/21.5/BP-E, 1/CA2/22.5/BP-E, 1/CA2/23.5/BP-E and 1/CA2/24.5/BP-E.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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| Inspected By: | Lizardo, Joselito |
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| Quality Assurance Inspector |
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| Reviewed By: | Reyes, Danny |
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| QA Reviewer |
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